

CYLINDER BORING MACHINE.

## A CYLINDER BORING MACHINE AND SOME NEW VISES.

We present herewith an illustration of a Cylinder Boring Machine possessing such features as have recommended it to a number of wellknown manufacturing companies. It has proved



tself durable, a fine working machine, and quick in its movements. It is manufactured by the Barrett Vise and Tool Company, of Meadville, Pennsylvania.

The cone pulleys have four speeds for 4½ inch belt. It is strongly geared, the large gear being 3 feet in diameter, driving pinions 6 inches in diameter; the bar is 9 feet long, 5 inches in diameter, and parted in the center so as to receive the cylinder. The bar slides through two sleeves 17 inches long, with facers attached. The bearings of the sleeves in boxes are 11 inches. The outside box can be adjusted to any width cylinder and the cylinder is set with four heavy screws working in two cross-bars that slide in the bottom of the bed. The cylinder is held to its place by two heavy chains, connected by screws, nuts, and straps below, which hold it firmly to its position. A cylinder can be set on this machine in five minutes.

The No. 1 machine will bore cylinders from 7 to 18 inches in diameter; No. 2 from 7 to 20 inches in diameter; No. 3 from 7 to 30 inches in diameter, boring and facing at the same time. As a record this machine has bored and faced five 9x12 inch cylinders in ten hours, and it makes a perfect bore and fine finish.

We also give below some cuts of Patent Improved Vises also manufactured by the same company, who make them in nine sizes, the largest with six-inch jaws, and the smallest with two-inch; the latter, nickel plated, makes a most complete and handsome jeweler's vise.

The very best materials are used in the construction of these vises, and the movable jaws adjust themselves to work, whether straight or tapering, automatically and instantly.

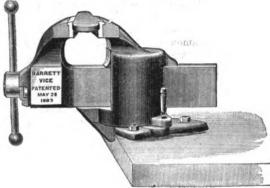


Fig. 1.

Figure 1 represents a vise complete and attached to the bench of a machinist.

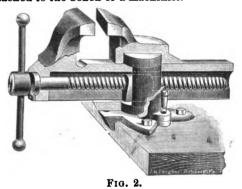
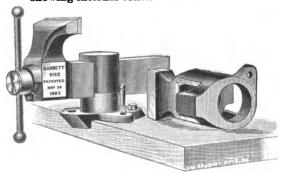


Figure 2 is a sectional view of the same vise, showing internal construction.



F1G. 3.

Figure 3 shows the vise taken apart, showing the form of the several parts.

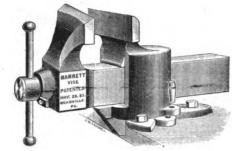


Fig. 4.

Figure 4 shows a coach-maker's or wood-work-

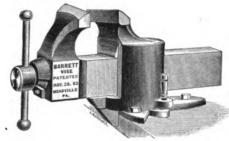


Fig. 5.

Figure 5 shows a filer's and finisher's vise. Further particulars and prices may be obtained on application to the Barrett Vise and Tool Company, Meadville, Pa.